

# MEMORANDUM

To: Attendees

From: Melissa Williams  
Authority Project Manager

Date: February 24, 2004

RE: *Focus Group Meeting # 4*  
*Section 100: I-95, I-895 (N) Split to North of MD 43*  
*Perry Hall Middle School, Perry Hall, Maryland*

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On February 24, 2004, the Maryland Transportation Authority (Authority) conducted the fourth Focus Group Meeting for the Section 100 project planning study. The purpose of the meeting was to update the Focus Group on the progress of the project since the November 18, 2003 Public Meeting. Those in attendance included:

## **Attendees:**

Mr. Bala Akundi - Baltimore Metropolitan Council  
Mr. A.J. Bierman - Route 40 East Business Association  
Mr. Bruce Campbell - Nottingham Properties  
Mr. George Ches - Hazelwood Park East Civic Association  
Mrs. Susan Ches - Hazelwood Park East Civic Association  
Mr. Jim Dorsey - McCormick, Taylor & Associates  
Ms. Anne Elrays - Maryland State Highway Administration  
Mr. J. Craig Forrest - Baltimore County Department of Public Works  
Mr. Vernon Freeman - Maryland State Highway Administration  
Mr. Ken Goon - Maryland Transit Administration/RKK  
Mr. Emery Hines - Baltimore County Department of Public Works  
Mr. Walt Kulis - Johnson, Mirmiran & Thompson  
Ms. Michelle Martin - Maryland Department of Transportation  
Mr. Jack Moeller - Johnson, Mirmiran & Thompson  
Ms. Roxane Y. Mukai - Maryland Transportation Authority  
Mr. Joel Oppenheimer - citizen  
Ms. Andra Parker - McCormick, Taylor & Associates  
Mr. Keith Quintrell - Johnson, Mirmiran & Thompson  
Mr. Dennis Seibel - Kings Court Condo Association  
Mr. Bob Sweeney - Maryland Transportation Authority  
Mr. Charlie Utermohle - McCormick, Taylor & Associates  
Ms. Melissa Williams - Maryland Transportation Authority  
Mr. Matt Wolniak - Johnson, Mirmiran & Thompson

### **OPENING REMARKS**

Melissa Williams, the Authority's Project Manager for Section 100, began the meeting with brief introductions. She then reviewed information discussed at previous Focus Group meetings, including how the alternates for Section 100 have evolved since first introduced to the Focus Group. Ms. Williams gave a brief summary of comments received at the November 18, 2003 Public Workshop. Comments included requests for noise wall studies, support/concerns for specific alternates, drainage issues, funding questions, and traffic concerns during construction.

Ms. Williams reviewed the Alternates Retained for Detailed Study (ARDS), the No-Build, General Purpose and Managed Lanes Alternates, and why these alternates are preferred. These alternates are being carried forward because, based on existing information, it appears that each has the potential to meet project objectives with acceptable environmental impacts and costs. However, based on more detailed engineering and environmental studies, these preliminary evaluations may be revised. Determinations of reasonableness, practicability, and prudence will be made (if needed) once more detailed information has been developed.

### **SECTION 100 TRAFFIC**

Matt Wolniak discussed traffic issues that are currently being addressed by the project team.

I-95 currently is designed for two different roadway speeds, 60 mph south of the I-95/I-895 split, and 70 mph north of the split. The curve of the northbound I-95 roadway over the I-895 roadway is designed for 60 mph. A review of accident data at this curve shows the accident rate would not be considered either a primary or secondary candidate safety improvement location. Therefore, the 60 mph curve does not appear to cause an accident problem.

The average travel time on I-95 from I-895 to north of MD 43 has been studied to ensure Section 100 improvements will maintain or improve average travel times throughout the study area.

Mr. Wolniak explained what Level of Service F would mean in 2025 if no improvements were made. Under these conditions it is estimated that approximately 8,000-10,000 vehicles per day would divert to the alternate routes of US 40, MD 7 or US 1, creating congestion on these arterial routes that abut residential and commercial areas.

### **ALTERNATES**

Jack Moeller explained the Alternates and gave an update on current design developments.

Mr. Moeller reviewed the three current alternates (the No-Build, the General Purpose, and the Managed Lanes Alternates) including the selected interchange options at I-95/I-895 (N), I-95/I-695, and I-95/MD 43.

**1. Alternate 1: No-Build** - The No-Build Alternate would include normal maintenance and minor safety improvements. There would be no increase in roadway capacity or any significant reduction in the accident rate.

**2. Alternate 2: General Purpose Lanes**

**a. Mainline** - This concept would include the provision of additional general-purpose lanes to accommodate the projected traffic demand. In order to reach an acceptable weekday and weekend level of service E and D, respectively, this concept would consist of:

- Four-lanes in each direction of I-95 from approximately ¼ mile south of the I-895 interchange to the point where I-95 merges with I-895,
- Six-lanes in each direction between the I-895 (N) Split and MD 43,
- and north of MD 43, the roadway would transition from five-lanes in each direction to four-lanes in each direction.

**b. I-95 / I-895 (N) Interchange - General Purpose Lanes / Option 2B** - This option reconfigures the existing interchange by relocating the southbound roadway of I-95 and the northbound roadway of I-895 to make I-95 the through movement in the interchange. Southbound I-95 is relocated immediately adjacent to the existing northbound roadway of I-95, whereas northbound I-895 is relocated to cross over the proposed northbound and southbound roadways of I-95.

Approaching from the south, I-95 northbound would be widened by one lane approximately ¼ mile south of the interchange. The resulting four-lanes would merge with the two-lanes of northbound I-895 to form six-lanes on I-95 northbound. The two northbound lanes of I-895 would diverge from southbound I-895, cross over both the northbound and southbound roadways of I-95, and merge with I-95 from the right.

Approaching from the north, I-95 southbound splits into three-lanes for southbound I-895 and four-lanes for southbound I-95. The fourth lane on southbound I-95 continues to approximately ¼ mile south of the interchange. The third lane of southbound I-895 ends with the off-ramp to Moravia Road.

**c. I-95 / I-695 Interchange - General Purpose Lanes / Option 2A** - This interchange option is a fully directional interchange which removes the braided mainline roadways on both I-95 and I-695 and replaces them with mainline roadway alignments that remain side-by-side. This improves the interchange geometry and improves driver expectancy by replacing all left-hand entrances and exits with more conventional right-hand entrances and exits.

I-95 northbound, south of the interchange consists of six general-purpose lanes. Four-lanes carry through the interchange northbound, while three-lanes exit to become the two-lane ramp to westbound I-695 and the one-lane ramp to eastbound I-695.

I-95 northbound, north of the interchange, consists of six general-purpose lanes. Four-lanes carry through the interchange to merge with the two-lane ramp from eastbound I-695 and the single-lane ramp from westbound I-695.

I-95 southbound, north of the interchange, consists of six general-purpose lanes. Four general-purpose lanes carry through the interchange while three-lanes exit to become the two-lane ramp to westbound I-695 and the one-lane ramp to eastbound I-695.

I-95 southbound, south of the interchange, consists of four general-purpose lanes and a three-lane entrance formed from the two-lane ramp from eastbound I-695 and the single-lane ramp from westbound I-695. This three-lane ramp merges with the four southbound general-purpose lanes. The outside entrance lane drops, leaving six general-purpose lanes south of the interchange.

Approaching from the east, the four westbound lanes of I-695 divide. Two-lanes carry through the interchange on I-695 and two-lanes exit, forming a one-lane ramp to I-95 northbound and a one-lane ramp to I-95 southbound.

West of the interchange, a two-lane ramp from southbound I-95 and a two-lane ramp from northbound I-95 join the I-695 westbound roadway, forming a 6-lane section westbound on I-695. This six-lane section tapers to meet the existing three-lane section in the vicinity of the US 1 interchange.

Approaching from the west, the existing three-lanes of I-695 transition to four-lanes. Two-lanes then proceed through the interchange while three-lanes exit, forming the two-lane ramp to I-95 northbound and the two-lane ramp to I-95 southbound.

East of the interchange, a one-lane ramp from southbound I-95 and a one-lane ramp from northbound I-95 are merged to a two-lane section before joining with the eastbound I-695 roadway. The resulting four-lane section tapers to meet the existing three-lanes of eastbound I-695.

**d. I-95 / MD 43 Interchange - General Purpose Lanes / Option 2B** - This interchange concept is a partial cloverleaf configuration, with two half-signals on MD 43 at the spur ramps. All weaving within the interchange is eliminated.

I-95 through the interchange consists of five general-purpose lanes. Two through lanes are generally provided on MD 43, with additional lanes added or dropped at interchange ramps.

Approaching from the south, the single-point exit leads to a single-lane ramp to eastbound MD 43 and a single lane loop ramp to westbound MD 43.

The southbound approach to the interchange is a similar configuration. A single-lane ramp exits to westbound MD 43 and a single lane loop ramp exits to eastbound MD 43.

Approaching from the west a single lane exit ramp connects MD 43 to southbound I-95 and a signalized left turn lane with the median of MD 43 feeds a two-lane ramp onto northbound I-95.

Similarly, approaching from the east a signalized left turn lane within the median of MD 43 feeds a two-lane ramp onto southbound I-95 and a single lane exit ramp connects MD 43 to northbound I-95.

### **3. Alternate 3: Managed Lanes**

**a. Mainline** - This concept includes two managed lanes per direction between I-895 and north of MD 43 plus additional general-purpose lanes as needed to operate between LOS E and LOS F. In order to provide the desired level of service, this concept would require the following number of lanes per direction:

- Four general-purpose lanes in each direction of I-95 from approximately ¼ mile south of the I-895 interchange to the point where I-95 merges with I-895,
- Two managed lanes and four general-purpose lanes in each direction between the I-895 split and MD 43,
- and north of MD 43, the roadway would transition from the six-lane section (two-lane managed and four-lane general-purpose in each direction) into the existing four-lanes in each direction.

The managed lanes could operate under a single management strategy 24-hours per day, or on a “time-share basis” with different restrictions at different times of day. Management strategies could include restrictions at access locations (ramps), by time of day (peak/off-peak), by vehicle-type (trucks/buses), by type of use (commercial / high occupancy vehicle (HOV)), or by price (variable or fixed). Managed lanes would be designed for flexibility so that management strategies can be modified over time to maximize person moving capacity, optimize vehicle carrying capacity and achieve transportation and community goals.

**b. I-95 / I-895 Interchange - Managed Lanes / Option 3B** - This option adjusts the configuration of the existing interchange by relocating the southbound roadway of I-95 and the northbound roadway of I-895 to make I-95 the through movement in the interchange. Southbound I-95 would be relocated adjacent to the existing northbound roadway of I-95, whereas the northbound general purpose lanes of I-895 would be relocated to a grade-separated crossing over both the proposed northbound and southbound roadways of I-95. Traffic moving from the southbound managed roadway to southbound I-895 must merge

with southbound I-895 general-purpose traffic and weave across southbound I-895 traffic to exit via Moravia Road.

Approaching from the south, I-95 would be widened beginning approximately ¼ mile south of the interchange to form the managed lane. The three northbound general purpose lanes of I-95 would merge with the two general purpose lanes of northbound I-895 before transitioning from a five-lane to a four-lane general purpose roadway approximately ¼ mile north of the merge point. A separate one-lane ramp exiting from the left side of northbound I-895 would be grade-separated over the southbound lanes of I-95 and merge with the I-95 managed lanes within the median of I-95.

Approaching from the south, the two-lanes of I-895 northbound would diverge from southbound I-895, cross over the northbound and southbound roadways of I-95 and merge with I-95 from the right, north of the interchange.

Approaching from the north, the four general-purpose lanes roadway of I-95 split into a two-lane southbound general-purpose roadway for I-895 and a three-lane general-purpose roadway for I-95. The two-lane managed roadway in the median of I-95 would split to a single-lane off-ramp to southbound I-895 that crosses over southbound I-95 and a single-lane managed lane that remains in the median of the southbound I-95 general-purpose roadway. The fourth lane of southbound I-95 (most likely the outside general purpose lane) would be carried through the interchange and dropped at a point approximately ¼ mile south of the interchange.

A short weaving distance may be created from the southbound managed lane of I-895 to the Moravia Road interchange, as well as from Moravia Road to the northbound managed lane of I-895. This weaving distance would be further examined.

**c. I-95 / I-695 Interchange - Managed Lanes/ Option 3A Modified** - This option improves the geometry and driver expectancy on I-95 and I-695 by untwisting the braided mainline of both roadways and replacing many of the existing left-hand entrances and exits with more conventional right-hand entrances and exits. The exit ramps typically split to separate ramps in opposite directions of travel for the destination route. Some left-hand exit and entrance ramps are retained for the managed lane ramps within the median of I-695, but all ramp movements for the general purpose roadways merge to and from the outside of I-95 and I-695. Most of the merges and diverges occur off of the mainline roadways for I-695 and I-95 (on the ramps themselves), limiting the number of lane drops that must occur on the mainline. A six-level interchange is required for this option, consisting of 2 mainline levels, 2 general-purpose ramp levels, and 2 managed ramp levels. This option would tie into the possible future HOV lanes along I-695 to the west of I-95.

Three general-purpose lanes are generally provided on I-95 through the interchange, with the fourth (outermost) lane in each direction of I-95 dropping to off-ramps to I-695. A minimum of two managed through lanes are provided in each direction of travel for I-95 throughout the interchange. Two through lanes are generally provided on the mainline of I-695, with additional lanes added or dropped at interchange ramps.

Approaching from the south on northbound I-95, the four-lane general-purpose roadway of northbound I-95 splits into a three-lane northbound general purpose roadway for I-95 and a three-lane, right-hand exit that ultimately splits to eastbound and westbound I-695. North of the I-695 interchange, a two-lane entrance ramp from I-695 merges together with the three-through lanes of I-95 through a series of acceleration lanes and lane drops to form a four-lane general-purpose roadway.

Approaching from the south on northbound I-95, the two-lane managed roadway runs parallel and adjacent to the median edge of the northbound general-purpose roadway of I-95. South of the interchange, traffic in the northbound managed roadway would have the option of continuing through the interchange on the two-lane managed roadway or exiting to either direction of I-695 through a common right-hand, single-lane exit. North of the interchange, traffic will enter the managed roadway through a common right-hand, two-lane entrance that merges back into a two-lane managed roadway via a series of lane drops.

Approaching from the north on the southbound general-purpose roadway of I-95, traffic would have the option of remaining on the 3-lane general-purpose roadway through the interchange or exiting to I-695 via a two-lane exit. South of the interchange, traffic from both directions of I-695 would enter from the right at a single point with a three-lane entrance ramp and merge via a series of lane drops into a four-lane general-purpose roadway.

Approaching from the north on the southbound managed roadway of I-95, the two-lane managed roadway runs adjacent to the median edge of the southbound general-purpose roadway of I-95. North of the interchange, traffic would have the option of remaining on the 2-lane managed roadway through the interchange or exiting to either direction of I-695 through a common right-hand, single lane exit. South of the interchange, traffic will enter the managed roadway through a common right-hand, two-lane entrance that merges back into a two-lane managed roadway via a series of acceleration lanes and lane drops.

Approaching the interchange from the west, traffic on eastbound I-695 would have the option of continuing through the interchange on the 2-lane eastbound general purpose roadway, entering either the northbound or southbound managed lane of I-95 from a common left-hand, single-lane exit in the median or entering the northbound or southbound general purpose lanes of I-95 through a common right-hand, three-lane exit on the outside of the eastbound roadway. East of the interchange, two lanes of general purpose traffic from I-95 will merge from the right and one lane of managed traffic will merge from the median with the 2 lanes of I-695 traffic, eventually dropping to 4 eastbound lanes.

Approaching the interchange from the east, traffic on westbound I-695 would have the option of remaining on the 2-lane westbound general-purpose roadway or entering the managed or general-purpose lanes of I-95 from a common right-hand, two-lane ramp. Traffic on this common ramp would ultimately split between a two-lane ramp to the northbound managed/general purpose roadways of I-95 and a single-lane southbound ramp to the southbound managed/general purpose roadways of I-95. West of the interchange, traffic from both the northbound and southbound directions of the I-95 managed roadway would drop into a dedicated interior lane for westbound I-695. Traffic from both the northbound and southbound directions of the I-95 general-purpose roadway would merge from right side of westbound I-695 through a series of acceleration lanes and lane drops.

The weaving distance between the entrance from southbound I-95 onto eastbound I-695 and the exit to MD 7 will be examined. Weaving distances between the managed lane median ramps and the US 1 interchange (0.7 miles) will be also be evaluated.

**d. I-95 / MD 43 Interchange - Managed Lanes Alternate / Option 3A** - The features of this option include single exit points for each approach with direct connections provided for all interchange movements. All weaving within the interchange is eliminated under this concept. Single-lane ramps provide for all movements to and from the managed lanes, with the lanes connecting directly to MD 43 at a signalized intersection on the structure over I-95.

I-95 through the interchange consists of two managed lanes and four general-purpose lanes. Two through lanes are generally provided on MD 43, with additional lanes added or dropped as necessary at interchange ramps.

Approaching from the south, there is a two-lane single-point exit ramp from I-95 northbound to MD 43 that splits into a single-lane ramp to eastbound MD 43 and a single-lane loop ramp to westbound MD 43. The single-point two-lane on-ramp from westbound MD 43 splits into a single-lane ramp to southbound I-95 and a single-lane ramp to northbound I-95.

Approaching from the north, there is a two-lane single-point exit ramp that splits from I-95 southbound to MD 43 into a single-lane ramp to westbound MD 43 and single-lane loop ramp to westbound MD 43 and a single-lane loop ramp to eastbound MD 43. The single-point two-lane on-ramp from eastbound MD 43 splits into a single-lane ramp to southbound I-95 and a single-lane ramp to northbound I-95.

Option 3A has three less displacements, reduced impacts to the rubble landfill, no impacts to the overhead power lines and lower construction cost than Option 3B. Option 3A is recommended for detailed study.

### **COMPUTER-GENERATED IMAGING**

Jim Dorsey and Keith Quintrell demonstrated examples of computer-generated 3D images that may be used to graphically display the selected alternates at the Summer 2004 Public Hearing.

Three different computer-generated 3D images were displayed. One displayed the alternates using a program that simulated the interchange based on factual information and animated vehicles traveling along the roadway to show viewers a realistic scenario. A second option displayed an image of the roadway, as it exists currently and superimposed various phases of the construction process sequentially. This included displaying vehicles traveling on the roadway and traffic patterns that would be used during the construction phases of the project. A third representation showed the existing roadway and the completed construction from an aerial view. The image rotated to give viewers a perspective as if traveling each direction of the interchange.

The Focus Group was asked to give their opinion of the usefulness of the computer-generated graphics. If beneficial, the Authority would develop similar displays for each of the selected interchange options. Members said that the images were helpful in better understanding the proposed alternates.

### **ENVIRONMENTAL IMPACTS**

Charlie Utermohle reviewed the environmental impacts of the project.

Early in the study, an environmental inventory was performed to identify existing socio-economic, cultural and natural environmental resources within the study area. The environmental team has worked with the design team to ensure the alternates chosen will have the least environmental impacts possible. A detailed evaluation of the environmental impacts associated with each remaining alternate has been completed.

Environmental documentation is being prepared according to National Environmental Policy Act (NEPA) regulations. Once finalized, these documents will be available for public viewing at the Summer 2004 Public Hearing, at various public libraries throughout the study area and at the Authority offices.

### **UPCOMING FOCUS GROUP MEETINGS**

Future Focus Group meetings have been scheduled for April 27 and June 8, 2004. Both meetings will be held at the Perry Hall Middle School from 6:30PM until 8:30PM.

### **PUBLIC HEARING**

The Public Hearing for the Section 100 project will be held on June 29, 2004 at the Perry Hall Middle School from 5:30PM until 8:30PM. The Hearing will be advertised in various newspapers throughout the study area. An informational brochure about the Hearing will be mailed to individuals owning property within the study area and to those who have requested to be on the project mailing list. At the Hearing, information regarding

the project including the purpose and need, environmental resources, alternates, and anticipated impacts will be presented. Members of the project team will be available to answer any questions the attending public may have. A formal presentation of the material will take place followed by a period of public testimony. All oral and written comments will be legally recorded and a transcript will be prepared. The project team will respond to each comment or question in writing.

Ms. Williams closed the meeting with the opportunity for members to view and discuss the alternates displays and computer-generated imaging.

If you have any questions or comments concerning the minutes, please contact the Authority's Project Manager, Melissa Williams, by telephone at (410) 288-8400 extension 383 or by Email at [Mwilliams9@mdtransportationauthority.com](mailto:Mwilliams9@mdtransportationauthority.com).